

Claim Amendments

1. (Previously considered) A method for producing transgenic plants which express exogenous proteins, comprising:
 - a. obtaining a sample of mRNA encoding said exogenous protein;
 - b. incubating seed of said plant with said mRNA under conditions whereby said mRNA enters said seed;
 - c. germinating said seed; and
 - d. growing said transgenic plant from said seed.
2. (Original) A method as claimed in claim 1, wherein said exogenous protein is soy globulin.
3. (Original) A method as claimed in claim 1, wherein said mRNA encodes soy globulin.
4. (Original) A method as claimed in claim 1, wherein said seed is corn seed.
5. (Original) A method as claimed in claim 1, wherein said exogenous protein is detected with methods selected from the group consisting of Western blotting, double agar immunodiffusion, and Sodium dodecyl sulfate polyacrylamide gel electrophoresis.
6. (Original) A method as claimed in claim 1, wherein said mRNA is introduced into said seeds by microinjection.
7. (Original) A method as claimed in claim 1, wherein said mRNA is isolated from soy cotyledon.

8. (Original) A method as claimed in claim 1, wherein said mRNA is isolated from soy sprouts.
9. (Previously presented) A transgenic plant expressing exogenous proteins, produced by a method comprising:
 - a. obtaining a sample of mRNA encoding said exogenous protein;
 - b. incubating seed of said plant with said mRNA under conditions whereby said mRNA enters said seed;
 - c. germinating said seed; and
 - d. growing said transgenic plant from said seed.
10. (Original) A method of producing transgenic corn plants expressing soy globulin, comprising:
 - a. obtaining soy globulin encoding mRNA;
 - b. incubating corn seed with said mRNA under conditions whereby said mRNA enters said corn seed;
 - c. germinating said corn seed treated as in step b;
 - d. growing a plant from said germinated seed; and
 - e. detecting said soy globulin in said transgenic corn plant.
11. (Previously submitted) A method for producing transgenic corn plants expressing soy globulin protein, comprising:
 - a. obtaining seed from corn and imbibing said seed in double distilled water for at least 48 hours;
 - b. isolating and purifying soy globulin mRNA from soy cotyledon;

- c. microinjecting 1 μ g/ μ l of said purified mRNA into said seed;
 - d. germinating said seed; and
 - e. growing transgenic corn plants from said seed, said transgenic plant producing said soy globulin protein.
12. (Cancelled)
13. (Cancelled)
14. (Cancelled)
15. (Previously submitted) A transgenic corn plant expressing soy globulin protein, produced by a method comprising:
- a. obtaining seed from corn and imbibing said seed in double distilled water for at least 48 hours;
 - b. isolating and purifying soy globulin mRNA from soy sprout;
 - c. microinjecting 1 μ g/ μ l of said purified mRNA into said seed;
 - d. germinating said seed; and
 - e. growing transgenic corn plants from said seed, said transgenic plant producing said soy globulin protein.
16. (Cancelled)
17. (Cancelled)
18. (Cancelled)
19. (Cancelled)
20. (Cancelled)
21. (Cancelled)

22. (Previously submitted) Kernels from a transgenic corn plant expressing soy globulin protein, produced by a method comprising:
- a. obtaining seed from corn and imbibing said seed in double distilled water for at least 48 hours;
 - b. isolating and purifying soy globulin mRNA from soy sprout;
 - c. microinjecting $1\mu\text{g}/\mu\text{l}$ of said purified mRNA into said seed;
 - d. germinating said seed;
 - e. growing transgenic corn plants from said seed, said transgenic plant producing said soy globulin protein; and
 - f. harvesting said kernels from said transgenic corn plants expressing soy globulin protein.
23. (Cancelled)
24. (Cancelled)
25. (Previously presented) Kernels expressing soy globulin protein from a transgenic corn plant produced by a method comprising:
- a. obtaining seed from corn and imbibing said seed in double distilled water for at least 48 hours;
 - b. isolating and purifying soy globulin mRNA from soy sprout;
 - c. microinjecting $1\mu\text{g}/\mu\text{l}$ of said purified mRNA into said seed;
 - d. germinating said seed;
 - e. growing transgenic corn plants from said seed, said transgenic plant producing said soy globulin protein; and

- f. harvesting said kernels from said transgenic corn plants.
26. (Cancelled)
27. (Cancelled)
28. (Previously presented) A method for producing transgenic plants expressing an exogenous protein, comprising:
- a. isolating mRNA from soy cotyledons encoding said exogenous protein;
 - b. microinjecting a seed with a suitable amount of said mRNA under conditions whereby said mRNA enters said seed;
 - c. germinating said seed; and
 - d. growing said transgenic plant from said seed.
29. (Previously presented) The method of claim 28 wherein said transgenic plants are corn plants.
30. (Cancelled)
31. (Previously presented) The method of claim 28 wherein said seed is a corn seed.
32. (Cancelled)
33. (Previously presented) A method for producing transgenic plants expressing an exogenous protein, comprising:
- a. isolating mRNA from soy cotyledons encoding said exogenous protein;
 - b. microinjecting a seed with a suitable amount of said mRNA under conditions whereby said mRNA enters said seed;
 - c. germinating said seed;

- d. growing said transgenic plant from said seed;
- wherein said transgenic plants are corn plants of corn variety 27-1; and
wherein said exogenous protein is soy globulin.
34. (Previously presented) The method of claim 30, wherein said exogenous protein is soy globulin.
35. (Amended) A method for producing a transgenic plant which expresses an exogenous protein, wherein said transgenic plant is capable of germinating into a second generation transgenic plant and wherein said second generation transgenic plant expresses said exogenous protein, comprising:
- a. isolating mRNA from soy cotyledons encoding said exogenous protein;
 - b. microinjecting a seed with a suitable amount of said mRNA under conditions whereby said mRNA enters said seed;
 - c. germinating said seed by placing the seed into an environment conducive for growth to produce initial growth thereof; and
 - d. continuing growing said transgenic plant from initial growth of said seed wherein said transgenic plant is capable of germinating into a second generation transgenic plant expressing said exogenous protein into a mature plant that is transgenic;
 - e. harvesting seeds from the mature plant;
 - f. growing plants that express the exogenous protein from the harvested seeds.

36. (Previously presented) The method of claim 35 wherein said transgenic plants are corn plants.
37. (Cancelled)
38. (Previously presented) The method of claim 35 wherein said seed is a corn seed.
39. (Cancelled)
40. (Amended) The method of claim 36, wherein said exogenous protein is soy globulin.
41. (Cancelled)
42. (Previously presented) A method for producing transgenic plants which express an exogenous protein, comprising:
- a. isolating mRNA from soy sprouts encoding said exogenous protein;
 - b. microinjecting a seed with a suitable amount of said mRNA under conditions whereby said mRNA enters said seed;
 - c. germinating said seed by placing the seed into an environment conducive for growth to produce initial growth thereof; and
 - d. continuing growing said ~~transgenic plant from~~ initial growth of said seed wherein said ~~transgenic plant is capable of germinating into a second generation transgenic plant expressing said exogenous protein~~ into a mature plant that is transgenic;
 - e. harvesting seeds from the mature plant;

f. growing plants that express the exogenous protein from the harvested seeds.

43. (Previously presented) The method of claim 42 wherein said transgenic plants are corn plants.

44. (Cancelled)

45. (Previously presented) The method of claim 42 wherein said seed is a corn seed :

46. (Cancelled)

47. (Amended) A method for producing transgenic plants which express an exogenous protein, comprising:

- a. isolating mRNA from soy sprouts encoding said exogenous protein;
- b. microinjecting a seed with a suitable amount of said mRNA under conditions whereby said mRNA enters said seed;
- c. germinating said seed; and
- d. growing said transgenic plant from said seed;

wherein said transgenic plants are corn plants of corn variety ~~27-1~~ 85089; and
wherein said exogenous protein is soy globulin.

48. (Previously presented) The method of claim 42, wherein said exogenous protein is soy globulin.

49. (Amended) A method for producing a transgenic plant which expresses an exogenous protein, wherein said transgenic plant is capable of germinating into a second generation transgenic plant and wherein said second

generation transgenic plant expresses said exogenous protein, comprising:

- a. isolating mRNA from soy sprouts encoding said exogenous protein;
- b. microinjecting a seed with a suitable amount of said mRNA under conditions whereby said mRNA enters said seed;
- c. germinating said seed by placing the seed into an environment conducive for growth to produce initial growth thereof; and
- d. continuing growing said ~~transgenic plant from~~ initial growth of said seed ~~wherein said transgenic plant is capable of germinating into a second generation transgenic plant expressing said exogenous protein~~ into a mature plant that is transgenic;
- e. harvesting seeds from the mature plant;
- f. growing plants that express the exogenous protein from the harvested seeds.

50. (Previously presented) The method of claim 49 wherein said transgenic plants are corn plants.

51. (Cancelled)

52. (Previously presented) The method of claim 49 wherein said seed is a corn seed.

53. (Cancelled)

54. (Previously presented) The method of claim 50, wherein said exogenous protein is soy globulin.

55. (Cancelled)

56. (Amended) A transgenic corn plant which expresses an exogenous protein, wherein said transgenic corn plant is capable of germinating into a second generation transgenic corn plant and wherein said second generation transgenic corn plant expresses said exogenous protein, produced by a method comprising:

- a. isolating mRNA from soy cotyledons encoding said exogenous protein;
- b. microinjecting a corn seed with a suitable amount of said mRNA under conditions whereby said mRNA enters said seed;
- c. germinating said seed by placing the seed into an environment conducive for growth to produce initial growth thereof; and
- d. continuing growing said transgenic plant from initial growth of said seed wherein said transgenic plant is capable of germinating into a second generation transgenic plant expressing said exogenous protein into a mature plant that is transgenic;
- e. harvesting seeds from the mature plant;
- f. growing plants that express the exogenous protein from the harvested seeds.

57. (Cancelled)

58. (Cancelled)

59. (Previously presented) The plant of claim 56 wherein said exogenous protein is a soy globulin protein.

60. (Cancelled)
61. (Amended) A transgenic corn plant which expresses an exogenous protein, wherein said transgenic corn plant is capable of germinating into a second generation transgenic corn plant and wherein said second generation transgenic corn plant expresses said exogenous protein, produced by a method comprising:
- a. isolating mRNA from soy sprouts encoding said exogenous protein;
 - b. microinjecting a corn seed with a suitable amount of said mRNA under conditions whereby said mRNA enters said seed;
 - c. germinating said seed by placing the seed into an environment conducive for growth to produce initial growth thereof; and
 - d. continuing growing said ~~transgenic plant from~~ initial growth of said seed ~~wherein said transgenic plant is capable of germinating into a second generation transgenic plant expressing said exogenous protein~~ into a mature plant that is transgenic;
 - e. harvesting seeds from the mature plant;
 - f. growing plants that express the exogenous protein from the harvested seeds.
62. (Cancelled)
63. (Cancelled)
64. (Amended) The plant of claim 62 61 wherein said exogenous protein is a soy globulin protein.

65. (Cancelled)
66. (Previously presented) A transgenic corn kernel which expresses an exogenous protein, wherein said transgenic corn kernel is capable of germinating into a transgenic corn plant which expresses said exogenous protein, produced by a method comprising:
- a. isolating mRNA from soy cotyledons encoding said exogenous protein;
 - b. microinjecting a corn seed with a suitable amount of said mRNA under conditions whereby said mRNA enters said corn seed;
 - c. germinating said corn seed;
 - d. growing said transgenic corn plant from said corn seed wherein said transgenic corn plant produces transgenic corn kernels; and
 - e. germinating said transgenic corn kernels expressing said exogenous protein.
67. (Previously presented) The plant of claim 66 wherein said exogenous protein is a soy globulin protein.
68. (Previously presented) A transgenic corn kernel which expresses an exogenous protein, wherein said transgenic corn kernel is capable of germinating into a transgenic corn plant which expresses said exogenous protein, produced by a method comprising:
- a. isolating mRNA from soy cotyledons encoding said exogenous protein;

- b. microinjecting a corn seed with a suitable amount of said mRNA under conditions whereby said mRNA enters said corn seed;
 - c. germinating said corn seed;
 - d. growing said transgenic corn plant from said corn seed wherein said transgenic corn plant produces transgenic corn kernels; and
 - e. germinating said transgenic corn kernels expressing said exogenous protein.
69. (Previously presented) The plant of claim 68 wherein said exogenous protein is a soy globulin protein.
70. (Previously presented) A transgenic corn kernel which expresses an exogenous protein, wherein said transgenic corn kernel is capable of germinating into a transgenic corn plant which expresses said exogenous protein, produced by a method comprising:
- a. isolating mRNA from soy sprouts encoding said exogenous protein;
 - b. microinjecting a corn seed with a suitable amount of said mRNA under conditions whereby said mRNA enters said corn seed;
 - c. germinating said corn seed;
 - d. growing said transgenic corn plant from said corn seed wherein said transgenic corn plant produces transgenic corn kernels; and
 - e. germinating said transgenic corn kernels expressing said exogenous protein.

71. (Previously presented) The plant of claim 70 wherein said exogenous protein is a soy globulin protein.
72. (Previously presented) A transgenic corn kernel which expresses an exogenous protein, wherein said transgenic corn kernel is capable of germinating into a transgenic corn plant which expresses said exogenous protein, produced by a method comprising:
- a. isolating mRNA from soy sprouts encoding said exogenous protein;
 - b. microinjecting a corn seed with a suitable amount of said mRNA under conditions whereby said mRNA enters said corn seed;
 - c. germinating said corn seed;
 - d. growing said transgenic corn plant from said corn seed wherein said transgenic corn plant produces transgenic corn kernels; and
 - e. germinating said transgenic corn kernels expressing said exogenous protein.
73. (Previously presented) The plant of claim 72 wherein said exogenous protein is a soy globulin protein.
74. (New) A method for producing a transgenic corn plant of a selected variety expressing an exogenous protein, the transgenic corn plant being capable of producing seeds germinating into a second generation transgenic corn plant of the selected variety expressing the exogenous protein, comprising:
- a. isolating mRNA from soy sprouts encoding the exogenous protein;

- b. microinjecting a seed of a corn plant of a selected variety with a suitable amount of the mRNA under conditions whereby the mRNA enters the seed;
 - c. placing the seed into an environment conducive for sprouting and subsequent initial growth;
 - d. continuing the initial growth of the seed into a mature corn plant, of the selected variety, that is transgenic;
 - e. harvesting seeds from the mature corn plant of the selected variety; and
 - f. growing corn plants of the selected variety that express the exogenous protein from the harvested seeds.
74. (New) A method for producing a transgenic corn plant of a variety selected from the group comprising varieties 27-1 and 85089 that expresses an exogenous protein, wherein the transgenic corn plant of the selected variety is capable of germinating into a second generation transgenic corn plant of the selected variety expressing the exogenous protein, comprising:
- a. isolating mRNA from soy cotyledons encoding the exogenous protein;
 - b. microinjecting a corn seed of the selected variety with a suitable amount of the mRNA under conditions whereby the mRNA enters the corn seed;
 - c. placing the corn seed into an environment conducive for sprouting and subsequent initial growth;

- d. continuing the initial growth of the corn seed into a mature corn plant, of the selected variety, that is transgenic;
- e. harvesting corn seeds from the mature corn plant of the selected variety; and
- f. growing corn plants of the selected variety that express the exogenous protein from the harvested corn seeds.